

CLAIMS

What is claimed is:

1. A supporting apparatus on a tire, comprising:
 - a rubber bead, said rubber bead is a circular salient structure which is pasted on an inner wall of the bead of said tire; and
 - a supporting device, said supporting device surrounding said rubber bead and then fixing on said tire.
2. The supporting apparatus according to claim 1, wherein said rubber bead is a continuous circular salient structure.
3. The supporting apparatus according to claim 2, wherein said continuous circular salient structure is formed by two surfaces of said rubber bead and said two surfaces are intersected by an acute angle.
4. The supporting apparatus according to claim 1, wherein said rubber bead is a gear-shaped circular salient structure.
5. The supporting apparatus according to claim 1, wherein said rubber bead is made of a rubber material.
6. The supporting apparatus according to claim 1, wherein said supporting device comprises an indentation section for making a connection with said circular salient structure of said rubber bead.
7. The supporting apparatus according to claim 1, wherein said supporting device comprises a supporting section, and said supporting section will support

the inner wall of said tire when the inflation pressure of said tire is lost.

8. The supporting apparatus according to claim 7, wherein the surface structure of said supporting section is selected from the group consisting of a flat structure, a grooved hollow structure, and a plurality of bulge.

9. The supporting apparatus according to claim 1, wherein said supporting device is a chain structure formed by a plurality of supporting elements.

10. The supporting apparatus according to claim 9, wherein said plurality of supporting elements is provided with a hollow structure and run through by a fixing device, and a connection device is provided to make the connection with said fixing device.

11. The supporting apparatus according to claim 10, wherein said fixing device comprises a rivet.

12. The supporting apparatus according to claim 10, wherein said connection device comprises a side plate.

13. The supporting apparatus according to claim 9, wherein said plurality of supporting elements are provided with a malposition structure and linked to form said supporting device.

14. The supporting apparatus according to claim 1, wherein the material of said supporting device is selected from the group consisting of a rubber material, an aluminum alloy and a transition metal.

15. The supporting apparatus according to claim 1, wherein said supporting device is provided with a hollow structure.

16. A safe tire, comprising:

a tire;

a rubber bead, said rubber bead is a circular salient structure which is pasted on an inner wall of the bead of said tire; and

a supporting device, said supporting device surrounding said rubber bead and then fixing on said tire.

17. The safe tire according to claim 16, wherein said rubber bead is made of a rubber material and said circular salient structure of said rubber bead is selected from the group consisting of a continuous circular salient and a gear-shaped circular salient.

18. The safe tire according to claim 16, wherein said supporting device comprises an indentation section and a supporting section, said indentation section is used to make a connection with said circular salient structure of said rubber bead, said supporting section will support the inner wall of said tire when the inflation pressure of said tire is lost, and the surface structure of said supporting section is selected from the group consisting of a flat structure, a grooved hollow structure, and a plurality of bulges.

19. The safe tire according to claim 16, wherein said supporting device is a chain structure formed by a plurality of supporting elements, and said plurality of supporting elements are provided with a hollow structure and run through by a

fixing device, and a connection device is provided to make the connection with said fixing device.

20. The safe tire according to claim 19, wherein said plurality of supporting elements are provided with a malposition structure and linked to form said supporting device, and said supporting device is provided with a hollow structure.